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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/876,198	06/06/2001	Tom McGee	US 010136	9113
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/876,198

Applicant(s)

MCGEE ET AL.

Examiner

ANNAN Q. SHANG

Art Unit

2424

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-4, 8, 10-14, 18, 20 and 22-25 are rejected under 35 U.S.C. 102(e) as being anticipated by **Tsukidate (7,471,876)**.

As to claim 1, note the **Tsukidate** reference figures 1-3, disclose terminal device for recording broadcast information and/or playing video and audio data and further discloses a method of processing a catalog of electronic programming information including a start time and an end time of the at least one program, the method comprising:

Obtaining (Receiver "R" 5) from the at least one program a first value (EPG data packet or Schedule data packet) representing characteristics data of the at least one program at the start time (figs.1-3, col.1, line 48-col.2, line 28 and col.3, line 47-col.4, line 29), and

Storing the first value in the catalog; and obtaining from the least one program a second value representing characteristics data of the at least one program at the end

time (changed EPG data packet or Schedule data packet (col.5, line 1-col.6, line 36, line 55-col.7, line 27); and

Storing the second value in the catalog; when a user selects the at least one program for future use by a device with a program input, copying the first value and the second value to the device (col.5, line 1-col.6, line 36, line 55-col.7, line 27 and col.11, line 46-col.12, line 24);

Comparing (Processor) the first value and the second value to corresponding values obtained from the program input to determine a start and stop time for the use (col.5, line 1-col.6, line 36, line 55-col.7, line 27 and col.11, line 46-col.12, line 24).

As to claim 2, Tsukidate further discloses where the at least one program is a carried by a video signal source (col.1, line 48-col.2, line 28 and col.3, line 47-col.4, line 29).

As to claim 3, Tsukidate further discloses where the use for the at least one program includes the device displaying the at least one program (col.1, line 48-col.2, line 28 and col.3, line 47-col.4, line 29).

As to claim 4, Tsukidate further discloses where the use for the at least one program includes the device recording the at least one program (col.1, line 48-col.2, line 28 and col.3, line 47-col.4, line 29).

As to claim 8, Tsukidate further discloses where at least one of the first value and the second value representing characteristics data gathered from the at least one program is generated from audio portion from one or more frames of the at least one

program (col.5, line 1-col.6, line 36, line 55-col.7, line 27 and col.11, line 46-col.12, line 24).

As to claim 10, Tsukidate further discloses where the characteristics data gathered from the at least one program is obtained from low level features (col.5, line 1-col.6, line 36, line 55-col.7, line 27 and col.11, line 46-col.12, line 24).

As to claim 11, the claimed "A method of processing a catalog of electronic programming information containing information for at least one program..." is composed of the same structural elements that were discussed with respect to the rejection of claim 1.

Claim 12 is met as previously discussed with respect to claim 2.

Claim 13 is met as previously discussed with respect to claim 3.

Claim 14 is met as previously discussed with respect to claim 4.

Claim 18 is met as previously discussed with respect to claim 8.

Claim 20 is met as previously discussed with respect to claim 10.

As to claims 22-23, **Tsukidate** further discloses a system for processing a catalog of electronic programming information, in which the catalog contains information for a program, where a start time and end time of the program is stored, in which the program is represented by characteristic data gathered from the program, the system comprising:

A video signal source of the program (Receiver 5, figs.1-3, col.1, line 48-col.2, line 28 and col.3, line 47-col.4, line 29); and

A processor operatively coupled to the video signal source, the processor coupled to an electronic programming guide, and coupled to a user selection device, and output means (col.1, line 48-col.2, line 28 and col.3, line 47-col.4, line 29); the processor configured to:

Obtain a user programming selection from the user selection device (figs.1-3, col.1, line 48-col.2, line 28 and col.3, line 47-col.4, line 29);

Obtain the characteristic data, program channel selection, and the start time and the end time from the catalog (figs.1-3, col.1, line 48-col.2, line 28 and col.3, line 47-col.4, line 29); and

Monitor the video signal source at time proximal to the start time and the end time, comparing the characteristic data generated from the video signal source; and when the characteristic data obtained from the catalog is equivalent to the complimentary characteristic data generated from the video signal source, set the logic output means to TRUE, and stop performing the comparison or otherwise set the logic output means to FALSE and continue performing the comparison on the video signal source (col.5, line 1-col.6, line 36, line 55-col.7, line 27 and col.11, line 46-col.12, line 24).

As to claims 24-25, Tsukidate further discloses where the processor is operatively connected to a device for further processing the program, where a true value for the logic output means causes the processor to turn on the device to a channel of the program and a false value of the logic output means causes the

processor to turn off the device (col.5, line 1-col.6, line 36, line 55-col.7, line 27 and col.11, line 46-col.12, line 24).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 5-7, 9, 15-17, 19 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Tsukidate (7,471,876)** as applied to claims 1 and 11 above, and further in view of **Dimitrova et al (6,100,941)**.

As to claim 5, Tsukidate further discloses using title of programs, changes in the EPG data packet, etc., to extract schedule information of programs for recording (col.11, lines 9-30, line 63-col.12, line 9 and lines 30-43), but fails to explicitly teach where at least one of the first value and the second value representing characteristics data gathered from the at least one program is signature generated by using a combination of features from a frame of the at least one program, including signatures extracted from DCT

However, in the same field of endeavor, **Dimitrova** discloses apparatus for locating a commercial disposed within a video data stream and further teaches characteristics data gathered from signature generated from a combination of features from a frame of the broadcast (col.2, lines 10-64, col.4, line 63-col.5, line 18, line 66-

col.6, line 39, col.7, line 58-col.7, line 1+, col.14, lines 29-41 and col.17, line 50-col.18, line 1+).

Hence it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Dimitrova into the system of Alexander in order to detect the begin/end times of a broadcast program via an analysis of various features of the program frames to provide more accurate program detection system.

As to claims 6-7, Tsukidate further fails to generate characteristics data from the at least one program is a color histogram generated from a frame of at least one program and generating from closed captioning data from the frame of the program.

However, Dimitrova further teaches analysis of a color histogram generated from a program frame and also closed captioning data generated from a program frame, which is used to determine the start/stop time of a program located within a stream (col.2, lines 10-64 and col.18, line 1-35).

Hence it would have been obvious to one of ordinary skill in the art to incorporate the teaching of Dimitrova into the system of Tsukidate for the same stated advantage of claim 5.

Claim 9 is met as previously discussed with respect to claim 5.

Claim 15 is met as previously discussed with respect to claim 5.

Claims 16-17 are met as previously discussed with respect to claims 6-7.

Claim 19 is met as previously discussed with respect to claim 5.

As to claim 21, **Tsukidate** discloses in figs.1-3 disclose systems and methods for displaying and recording control interface with TV programs, video, advertising

information and program scheduling information and further discloses a method of processing a catalog of electronic programming information including a start time and an end time of the at least one program, the method comprising:

Obtaining start and end times (data packets of EPG schedule) and characteristics for a program selected for display from the catalog where the characteristic includes information about the start of the program and the end of the program (col.3, lines 3-20, col.5, lines 5-15, col.19, lines 13-29 and col.33, line 44-65);

Recording an incoming signal (packets of scheduling changes) when the signature for a program (e.g. live sports) matches the signature of the start time within the obtained signature; and terminating an incoming recording of the incoming signal when the signature of the incoming signal matches the signature of the end time within the obtained signature (col.11, line 63-col.12, line 9, line 53-col.13, line 13)

Tsukidate, teaches receiving data packets of characteristics data of EPG scheduling, but fails to explicitly teach obtaining a signature of a program.

However, in the same field of endeavor, **Dimitrova** discloses apparatus for locating a commercial programs disposed within a video data stream and further teaches characteristics data gathered from signature generated from a combination of features from a frame of the broadcast (col.2, lines 10-64, col.4, line 63-col.5, line 18, line 66-col.6, line 39, col.7, line 58-col.7, line 1+, col.14, lines 29-41 and col.17, line 50-col.18, line 1+).

Hence it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of Dimitrova into the system of Tsukidate in

order to detect the begin/end times of a broadcast program via an analysis of various features of the program frames to provide more accurate program detection system.

Response to Arguments

5. Applicant's arguments with respect to claims 1-25 have been considered but are moot in view of the new ground(s) of rejection discussed above. This office action is non-final.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kawaguchi et al (6,271,893) disclose digital television broadcasting system.

Roop et al (7,210,159) disclose system and method for transmitting and utilizing electronic programs guide information.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Annan Q. Shang** whose telephone number is **571-272-7355**. The examiner can normally be reached on **700am-400pm**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Christopher S. Kelley** can be reached on **571-272-7331**. The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the **Electronic Business Center (EBC) at 866-217-9197 (toll-free)**. If you would like assistance from a **USPTO Customer Service Representative** or access to the automated information system, **call 800-786-9199 (IN USA OR CANADA) or 571-272-1000**.

/Annan Q Shang/

Primary Examiner, Art Unit 2424

Annan Q. Shang